ABSTRACT

It is an object of the present invention to provide a liquid composition which comprises an acid/acid salt group-containing polymer and from which cured articles excellent in mechanical characteristics and undergoing only slight dimensional changes depending on the moisture content can be produced by application thereof to a substrate or impregnation of a porous material therewith.

The present invention relates to a fluoropolymer liquid composition comprising a fluoropolymer liquid (A) which comprises a liquid medium and a crosslinkable functional group-containing crosslinkable fluoropolymer,

wherein said fluoropolymer liquid (A) is a fluoropolymer liquid dispersion (AD) having, dispersed in a liquid dispersion medium, particles of a crosslinkable fluoropolymer (PD) containing acid/acid salt groups or organic groups capable of undergoing hydrolysis and thus being converted to carboxyl groups, or a fluoropolymer solution (AS) having, dissolved in a fluorosolvent or an alcohol/water mixed solvent, a crosslinkable fluoropolymer (PS) containing acid/acid salt groups or acid/acid salt groups precursors;

said acid/acid salt groups are sulfonic acid groups, carboxyl groups or groups of the formula $-SO_2NR^2R^3$, $-SO_3NR^4R^5R^6R^7$, $-SO_3M^1{}_{1/L}$, $-COONR^8R^9R^{10}R^{11}$ or $-COOM^2{}_{1/L}$, wherein R^2 represents a hydrogen atom or $M^5{}_{1/L}$, R^3 represents an alkyl group or an sulfonyl-containing group, R^4, R^5, R^6, R^7, R^8, R^9, R^{10} and R^{11} are the same or different and each represents a hydrogen atom or an alkyl group, and M^1, M^2 and M^5 each represents a metal having a valence of L, said metal having a valence of L being a metal belonging to the group 1, 2, 4, 8, 11, 12 or 13 of the periodic table; and

said acid/acid salt groups precursors are $-SO_2F$, $-SO_2NR^{22}R^{23}$ (wherein R^{22} and R^{23} are the same or different and

each represents an alkyl group) or organic groups capable of undergoing hydrolysis and thus being converted to carboxyl groups.